

Agency Profile

The Washington State Department of Transportation (WSDOT) values its employees, challenges them to continuously improve the way we do business to meet and exceed the needs of our customers, and to carry out their duties in an ethical manner. WSDOT is a multi-modal transportation agency in one of the fastest growing areas of the country responsible for planning, building and operating a complex highway system in addition to operating a large ferry system and freight and passenger rail system.

How To Apply

To be contacted for vacancies as they occur, send application/resume to: [jobinfo@wsdot.wa.gov](mailto:jobinfo@wsdot.wa.gov).

For information on this and other Engineering positions please visit: [www.wsdot.wa.gov/employment](http://www.wsdot.wa.gov/employment).

Contact

Headquarters (360) 705-7504

Additional Information

The Washington State Department of Transportation (WSDOT) is an equal opportunity employer. Women, racial and ethnic minorities, persons of disability, persons over 40 years of age, and disabled and Vietnam era veterans are encouraged to apply. Persons with disabilities needing assistance in the application process, or those needing this job announcement in an alternative format may call the Recruitment and Retention Section, Office of Human Resources, at (360) 705-7504 or email [jobinfo@wsdot.wa.gov](mailto:jobinfo@wsdot.wa.gov).

**Americans with Disabilities Act (ADA) Information**  
Materials can be provided in alternative formats: large print, Braille, cassette tape, or on computer disk for people with disabilities by calling the Office of Equal Opportunity (OEO) at (360) 705-7097. Persons who are deaf or hard of hearing may contact OEO through the Washington Relay Service at 7-1-1.

WSDOT’s Bridge Engineer

Washington, the Evergreen State, is a study in contrasts from the major urban areas of the Puget Sound, to the agricultural industry in Eastern Washington, to the coastal communities on the Olympic Peninsula. Imagine the engineering challenges of building and operating transportation systems in Washington State’s diverse geography – with mountain passes, wetlands, river basins and eroding coastline – coupled a climate that extends from rain forests to desert plains. Here is where the Washington State Department of Transportation’s (WSDOT) entry level engineering positions begin a varied and challenging career.

We invite college Civil Engineering students to check out WSDOT’s wide range of career opportunities. Depending on your interests, education and background, you can plan a path that takes you from this entry-level position to the top of your field. This brochure provides just a sampling of the opportunities that await you, where you can make a difference in the quality of life for the people of Washington.

Desired Qualifications

- A bachelor’s degree in civil or structural engineering.
- Or certification as an Engineer-In-Training (EIT).

Note: Applications can be accepted up to nine months prior to graduation.

Benefits

Outstanding benefits including:

- Job rotation opportunities
- Health and dental insurance
- Life and long-term disability insurance
- State retirement plans
- Vacation, sick, military and civil leave
- Dependent care assistance program
- Employee Assistance Program
- Deferred compensation plans
- Training and educational benefits program
- Paid holidays
- Commute Trip Reduction incentives
- Flexible work hours
- Credit union membership
- Group rate auto and homeowners insurance



Bridge Engineering in the Evergreen State

Bridge Engineer  
Position and Agency Information

310 Maple Park Avenue SE  
Olympia, WA 98504-7310  
(360) 705-7504

Get information online at:  
[www.wsdot.wa.gov/employment](http://www.wsdot.wa.gov/employment)

Bridge Design

Structural Design

The Bridge Design Office performs structural design to provide safe structures for the state’s transportation system. Washington State has over 3,000 existing bridges and typically builds 18 new bridges per year. WSDOT is nationally known for its high level structural technical expertise. Our staff of civil and structural engineers is trained to design steel and concrete bridges in highly complex and challenging projects.

Preliminary Plan Preparation

The WSDOT Bridge and Structures Office prepares bridge preliminary plans defining the type and orientation of the overall bridge structure in advance of preparing the final design details. The responsible designer leads the bridge preliminary plan through the collaborative process that establishes the structure type and depth, and span arrangement. The bridge preliminary plan is the basis for completing the final design details.

Construction Specifications and Cost Estimate Preparation

Preparation of structure construction specifications involves identifying work items and details that are not covered by the current WSDOT Standard Specifications for Road, Bridge and Municipal Construction, and assembling pertinent special provisions to supplement the standard specifications for these work items and details.

Structure cost estimates are prepared based on the quantities calculated for each bid item of structure work, and a review of how this project fits into the current heavy construction work climate.

Bridge Preservation

Our professional staff is motivated and trained to preserve our large and valuable inventory of existing bridges and structures throughout Washington State. The Bridge and Structures Office provides the full range of structural services required to provide safe, economical and reliable structures for the state’s transportation system.

Regional Inspection

The Regional Inspection group is comprised of the largest team within the Bridge Preservation Office. This group of inspectors has the task of completing federally-mandated inspections of in-service bridges from 20 feet to several thousand feet long, made of timber, concrete or steel. Access to the larger structures is by use of one of four UBITs (Under Bridge Inspection Trucks) owned by this office. We use advanced inspection techniques such as Ultrasonic, Magnetic Particle, and Dye Penetrant testing on many of the bridges. Training for this type of work is provided within the office. As an inspector in this team, you will travel throughout the entire state of Washington.

Special Structures

The Special Structures unit is a group of engineers responsible for structural inspections of the most unique bridges across the state of Washington. These include Movable Bridges, Ferry Terminals, Floating Bridges, Cable Structures, Lids, Tunnels, Sign Support structures, and High Mast Luminaries. Besides performing these structural inspections, the Special Structures Unit also maintains an underwater inspection team that travels the state performing underwater inspections on all bridges with piers in the waterway. The work performed by the engineers within the Special Structures unit is diverse and varied, and gives the employees an opportunity to see all the varied elements in these unique structure types. The Special Structures Unit also responds to bridge damage emergencies.

Construction Support

WSDOT Bridge Office Construction Support Engineers review and approve construction working drawings for all types of bridges and structures. Construction Support Engineers perform independent structural review and analysis of false-work, formwork, structural shoring, cofferdams, girder erection and assembly plans, and demolition procedures. These reviews ensure structural adequacy, safety to the traveling public and conformance with contract documents

Architecture

The WSDOT Bridge and Structures Office retains the services of a registered architect. The Bridge Architect is responsible for the aesthetic quality of state bridges and structures. The architect develops aesthetic policy and provides design guidance for bridge and transportation structures.

Signing, Signal and Illumination Structures

The WSDOT Bridge and Structures Office is responsible for design and review of all overhead signing, signal and illumination structures constructed for the state highway system. These structures provide interesting design challenges for our staff, requiring innovative approaches to overcome existing constraints in previously-developed urban corridors.

Bridge Repairs

Our office is routinely involved in the design of repairs to state highway bridges damaged during service. Over height vehicle impacts, fire damage and earthquakes all pose risks to the state bridge inventory. Repairing the damage caused by these events is an important part of maintaining the state highway system.

Movable Bridge

The Movable Bridge unit is responsible for the inspection and design of the mechanical and electrical systems of the state’s movable structures, including hydraulic systems. This unit develops and maintains the Operation, Inspection, and Maintenance manuals for all of the state’s movable bridges. The engineers are responsible for all inspections, specifications, and reports. This unit also provides support and oversight for consultants, as well as staff in Bridge Design, Maintenance, and Project Engineering offices.

Risk Reduction

The Risk Reduction unit analyzes the capacity of structures for loads, evaluates overweight vehicles for permits (up to 1,000,000 pounds!), and is responsible for bridge waterway issues. This includes stream bank erosion, channel migration, and hydraulic analysis to mitigate scour at state bridges and, where possible, improvement of fish and wildlife habitat and other ecological values. Provides action plans to monitor scour critical bridges in cases of flooding to ensure the safety of the traveling public.

Bridge Information

The Bridge Information group maintains the state and local agency National Bridge Inventory database, and develops in-house software for bridge inspection and inspection support. This group also maintains an extensive historical record of the state and local agency bridges, including bridge plans, repairs, and correspondence.





Washington State  
Department of Transportation

# Bridge Engineering In The Evergreen State

## Washington, The Evergreen State, is a Study in Contrasts

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Here is where the Washington State Department of Transportation's engineering field begins. Here is where you can make a difference in the quality of life for the people of Washington.

**Visit us online at:**  
[www.wsdot.wa.gov/employment](http://www.wsdot.wa.gov/employment)

